

WHAT IS CLAIMED IS:

1. A personal communication system (PCS) server of a personal communication system providing PCS subscribers with personal telephone numbers, comprising:

a PCS destination profile memory for storing in association with at least one personal telephone number (PTN) a number of destination profiles respectively consisting of a sequence of destination numbers indicating a number of predetermined destination locations;

a PCS routing means for completing an incoming call directed to said PTN by routing the incoming call sequentially to destination locations in accordance with the sequence indicated in a destination profile until said call is abandoned or answered; and

a destination profile handling means for selectively handling one or more of said destination profiles stored in said PCS destination profile memory in response to a destination profile handling message received via said PCS communication system and including at least one handling parameter indicating a predetermined handling of at least one of said destination profiles.

2. A PCS server according to claim 1, wherein
said destination profile handling means
comprises an activation/deactivation means for
selecting and activating/deactivating a
predetermined one of said destination location
profiles in said PCS destination profile memory in
response to a selection/ activation/deactivation
handling parameter in said destination profile
handling message indicating said predetermined
destination location profile to be
selected/activated/deactivated.

3. A PCS server according to claim 1, wherein:
said PCS server has associated with it a
predetermined PCS server number to which said
destination profile handling message is routed.

4. A PCS server according to claim 3, wherein:
said PCS server further comprises a voice
message storage means for storing predetermined
voice messages provided to a PCS subscriber by said
PCS routing means after said destination profile
handling message is received by said PCS server.

5. A PCS server according to claim 2, wherein:
said selection/activation/deactivation
parameter comprises a combination of digits and
symbols which indicate the
selection/activation/deactivation and the number of
the destination profile to be selected.

6. A PCS server according to claim 1, wherein:
said destination profile handling parameter includes a user authority code or a PIN wherein said PCS server further includes an authorization check means for checking the user authorization of said received destination profile handling message.

7. A PCS server according to claim 1, wherein:
said destination profile handling message comprises a destination profile switching parameter and said destination profile handling means comprises a destination profile switching means for switching between predetermined ones of said destination profiles in said PCS destination profile memory in response to said destination profile switching parameter.

8. A PCS server according to claim 7, wherein:
said destination profile switching parameter comprises a combination of digits and/or symbols which indicate a switching request and a number of the destination profile to be switched to.

9. A PCS server according to claim 1, wherein:
said destination profile handling message is issued by a handling request means of a PCS subscriber telephone located within the PCS communication system.

10. A PCS server according to claim 1, wherein:

said destination profile handling message is issued by a handling request means of a PCS subscriber telephone outside the PCS communication system.

11. A PCS server according to claim 1, wherein:

said destination profile handling message is issued from said PCS communication system which sets said handling parameters in accordance with operating conditions of said PCS system and/or a telephone system connected to said PCS system.

12. A PCS server according to claim 1, wherein:

said one or more handling parameters indicate one or more call distribution parameters for one or more of said destination locations in said one or more destination profiles and said destination profile handling means comprises a call distribution parameter setting means for setting said call distribution parameters in said one or more destination profiles.

13. A PCS server according to claim 12, wherein:

several call distribution parameters for one or more destination locations are indicated by the handling parameters and at least one of said call handling parameters also indicates a logical combination for a call routing for said one or more location destinations.

14. A PCS server according to claim 12, wherein:

said destination profile handling message comprises at least one PTN call origin parameter indicating for one or more predetermined destination locations the allowed call origin for a PTN call and said destination profile handling means comprises a first destination subset determining means for setting said at least one call origin parameter at one or more of said destination locations in at least one destination profile to determine at least one subset of destinations in at least one destination profile which shall attend to PTN calls having a call origin as indicated by said PTN call origin parameter.

15. A PCS server according to claim 12, wherein:

said destination profile handling message comprises at least one teleservice-type parameter indicating for one or more predetermined destination locations the allowed type of teleservice for a PTN call and said destination profile handling means comprises a second destination subset determining

means for setting said at least one teleservice-type parameter at one or more of said destination locations in at least one destination profile to determine at least one subset of destinations in at least one destination profile which shall attend to PTN calls having a teleservice type as indicated by said PTN call teleservice-type parameter.

16. A PCS server according to claim 12, wherein:

said destination profile handling message comprises one or more busy option parameters indicating busy options for said destination locations of said destination profiles, said busy options indicating for a particular destination location either a destination location in said destination profile to which a PTN call is to be routed by said PCS routing means in case the particular destination location is busy, or the issuance of a busy indication to the calling subscriber, said PCS server further comprising a busy option set means for setting said busy options in said destination options.

17. A PCS server according to claim 12, wherein:

said destination profile handling message comprises one or more PTN number of calls parameters indicating for at least one destination location in said destination profile whether one or more than one call can be delivered to said destination location; and

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said destination profile handling means further comprises a PTN number of calls parameter setting means for setting said PTN number of calls parameter in said indicated destination location.

18. A PCS server according to claim 11, wherein:

said destination profile handling message comprises one or more PTN number of calls flags indicating for at least one destination location in said destination profile whether a call is being delivered to said destination location or not; and

said PCS-server further comprises a PTN number of calls flag setting means for setting said PTN number of calls flags in said indicated destination profiles.

19. A personal communication system (PCS) server of a personal communication system providing PCS subscribers with personal telephone numbers PTNs, comprising:

a PCS destination profile memory storing in association with at least one personal telephone number PTN a number of destination profiles respectively consisting of a sequence of destination numbers indicating a number of predetermined destination locations; and

a PCS routing means for completing an incoming call directed to said PTN by routing the incoming call sequentially to destination locations in accordance with the sequence indicated in a destination profile until said call is abandoned or answered,

wherein:

one or more of said destination numbers have associated with them one or more call distribution parameters; and

said PCS routing means routes an incoming PTN call to destination locations in said destination profile in accordance with the sequence indicated in a destination profile and said one or more call distribution parameters until said call is abandoned or answered.

20. A PCS server according to claim 19, further comprising:

a destination profile handling means for selectively handling one or more of said destination profiles in accordance with one or more handling parameters of a destination profile handling message.

21. A PCS server according to claim 20, wherein:

said destination profile handling message is received from a PCS subscriber telephone which sets said handling parameters.

22. A PCS server according to claim 21, wherein:
said one or more handling parameters indicate
said one or more call distribution parameters to be
set by said destination profile handling means.
23. A PCS server according to claim 21, wherein:
said one or more handling parameter comprises
one or more parameters selected from the group
consisting of the following parameters: a
selection/activation/ deactivation handling
parameter and a switching parameter.
24. A PCS server according to claim 20, wherein:
said destination profile handling message is
received from said PCS communication system which
sets said handling parameters in accordance with
operating conditions of said PCS system and/or a
telephone system connected to said PCS system.
25. A PCS server according to claim 24, wherein:
said one or more handling parameters indicate
said one or more call distribution parameters to be
set by said destination profile handling means.

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26. A PCS server according to claim 24, wherein:

said one or more handling parameters comprises one or more parameters selected from the group consisting of the following parameters: a selection/activation/ deactivation handling parameter and a switching parameter.

27. A PCS server according to claim 19, wherein:

said call distribution parameters are selected from one or more parameters selected from the group consisting of a call origin parameter, a teleservice-type parameter, a busy option parameter, a PTN number of calls parameter and a PTN number of calls flag.

28. A PCS server according to claim 19, wherein:

several call distribution parameters are associated with said destination number and said PCS routing means routes an incoming PTN call to destination locations in said destination profile in accordance with the sequence indicated in said destination profile and a logical combination of said call distribution parameters.

29. A PCS server according to claim 28, wherein:

said one or more handling parameters indicate said one or more call distribution parameters to be set by said destination profile handling means; and said call handling parameter also indicates the logical combination.

30. A PCS server according to claim 27, wherein:

said PCS routing means comprises a call origin determining means for comparing a call origin of the incoming PTN call with the set call origin parameter at said destination numbers; and

said PCS routing means selects a next destination location in the destination profile if the call origin and the call origin parameter do not match and routes the PTN call to the destination location when they match.

31. A PCS server according to claim 27, wherein:

said PCS routing means comprises a teleservice determining means for comparing a teleservice type of the incoming PTN call with the set teleservice-type parameter at said destination number; and

said PCS routing means selects a next destination location in the destination profile if the teleservice type and the teleservice-type parameter do not match and routes the PTN call to the destination location when they match.

32. A PCS server according to claim 30, wherein:

the call origin and/or the teleservice type of the PTN call is screened by a call origin/teleservice type determining means of the telephone system or the PCS server and is provided to said PCS server during call setup.

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33. A PCS server according to claim 27, wherein:

said PCS routing means comprises a busy state determining means for determining whether a present destination location to which the incoming PTN call is to be routed is busy or not; and

said PCS routing means routes said call to a next destination location as indicated by the busy option parameter at the present destination location if said present destination location is busy and said busy option parameter indicates a next destination location, or returns a busy indication to the calling subscriber if said present destination location is busy and said busy option parameter indicates the issuance of a busy indication.

34. A PCS server according to claim 27, wherein:

said PCS routing means comprises a PTN number of calls determining means for determining whether a call is already being delivered to a destination location to which said incoming PTN call is to be delivered, for setting said PTN number of calls flag when a call is being delivered to said destination location and for resetting said flag if no call is being delivered; and

said PCS routing means routes said incoming PTN call to said destination location if said PTN number of calls flag is set or to the next destination location in the destination profile if said PTN number of calls flag is not set.

35. A PCS server according to claim 27, wherein:

said PCS routing means comprises a PTN number of calls determining means for determining whether a call is already being delivered to a destination location to which said incoming PTN call is to be delivered, for setting said PTN number of calls flag when a call is being delivered to said destination location and for resetting said flag if no call is being delivered; and

said PCS routing means routes said incoming PTN call to said destination location if said PTN number of calls flag is set or to the next destination location in the destination profile if said PTN number of calls flag is not set;

said PCS routing means further comprises a PTN number of calls parameter determining means for determining on the basis of a set PTN number of call parameter whether one or more than one call can be delivered to a desired destination location; and

said PCS routing means routes said incoming PTN call to said destination location if said PTN number of calls parameter indicates that more than one call can be delivered to said destination location, or to the next destination location in the destination

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profile if said PTN number of calls parameter indicates that only one call can be delivered to said destination location and said PTN number of calls flag is set.

36. A PCS server according to claim 1, wherein:

said PCS routing means comprises an active destination profile determining means for determining an active destination profile in said destination profile memory; and

said PCS routing means routing said incoming PTN call in accordance with the call distribution parameters set to said active destination profile.

37. A PCS server according to claim 36, wherein:

said one or more handling parameter comprises one or more parameters selected from the group consisting of the following parameters: a selection/activation/ deactivation handling parameter and a switching parameter; and

said active destination profile is a default destination profile set by a default setting means of said destination profile handling means or an active destination profile selected by said selection/ activation/deactivation handling parameter and/or said switching parameter.

38. A method to control a personal communication system (PCS) server of a personal communication system providing PCS subscribers with personal telephone numbers comprising:

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- a) storing in a PCS destination profile memory in association with at least one personal telephone number (PTN) a number of destination profiles respectively consisting of a sequence of destination numbers indicating a number of predetermined destination locations;
- b) completing an incoming call directed to said PTN by routing the incoming call by a PCS routing means sequentially to destination locations in accordance with the sequence indicated in the destination profile until said call is abandoned or answered;
- c) sending a destination profile handling message to said PCS server via said PCS communication system including at least one handling parameter indicating a predetermined handling of at least one of said destination profiles; and
- d) selectively handling one or more of said destination profiles stored in said PCS destination profile memory in accordance with said handling parameter.

39. A method according to claim 38, further comprising:
in step c), sending in said destination profile handling message a selection/activation/deactivation handling parameter; and

in step d), selecting and activating/
deactivating a predetermined one of said destination
location profiles in said PCS destination profile
memory in response to said selection/activation/
deactivation handling parameter indicating said
predetermined destination location profile to be
selected/activated/deactivated.

40. A method according to claim 38, wherein:

said destination profile handling message is
routed to a predetermined PCS server number of said
PCS server.

41. A method according to claim 40, further comprising:

storing in a voice message storage means
predetermined voice messages and providing one of
the predetermined voice messages to a PCS subscriber
after said destination profile handling message is
received by said PCS server.

42. A method according to claim 39, wherein:

a combination of digits and symbols which
indicate the selection/activation/deactivation and
the number of the destination profile to be selected
is sent as said selection/activation/deactivation
parameter in said destination profile handling
message.

43. A method according to claim 38, further comprising:
 sending as a destination profile handling
parameter in said destination profile handling
message a user authority code or a PIN and checking
the user authorization of said received destination
profile handling message in said PCS server.

44. A method according to claim 38, further comprising:
 in step c), sending in said destination profile
handling message a destination profile switching
parameter; and

 in step d), switching between predetermined
ones of said destination profiles in said PCS
destination profile memory in response to said
destination profile switching parameter.

45. A method according to claim 44, wherein:
 said switching parameter comprises a
combination of digits and/or symbols which indicate
a switching request and a number of the destination
profile to be switched to.

46. A method according to claim 38, wherein:
 said destination profile handling message is
issued by a handling request means of a PCS
subscriber telephone located within the PCS
communication system.

47. A method according to claim 38, wherein:

said destination profile handling message is issued by a handling request means of a PCS subscriber telephone outside the PCS communication system.

48. A method according to claim 38, further comprising:

sending said destination profile handling message from said PCS communication system which sets said handling parameters in accordance with operating conditions of said PCS system and/or a telephone system connected to said PCS system.

49. A method according to claim 38, wherein:

said one or more handling parameters indicate one or more call distribution parameters for one or more of said destination locations in said one or more destination profiles and said call distribution parameter are set in said one or more destination profiles.

50. A method according to claim 49, wherein:

several call distribution parameters are indicated by said handling parameters for one or more of said destination profiles and at least one of said call handling parameters also indicates the logical combination for said one or more location destinations.

51. A method according to claim 49, further comprising:

in step c), sending in said destination profile handling message a PTN call origin parameter indicating the allowed call origin for a PTN call; and

in step d), setting said at least one call origin parameter at one or more of said destination locations in at least one destination profile to determine at least one subset of destinations in at least one destination profile which shall attend to PTN calls having a call origin as indicated by said PTN call origin parameter.

52. A method according to claim 49, further comprising:

in step c), sending as said destination profile handling message a PTN call teleservice-type parameter indicating for one or more predetermined destination locations the allowed type of teleservice for a PTN call; and

in step d), setting said at least one teleservice-type parameter at one or more of said destination locations in at least one destination profile to determine at least one subset of destinations in at least one destination profile which shall attend to PTN calls having a teleservice type as indicated by said teleservice parameter.

53. A method according to claim 49, further comprising:

in step c), sending in said destination profile handling message busy option parameters indicating busy options for said destination locations of said destination profiles, said busy options indicating for a particular destination location either a destination location in said destination profile to which a PTN call is to be routed by said PCS routing means in case the particular destination location is busy, or the issuance of a busy indication to the calling subscriber; and

in step d), setting said busy options in said destination locations in response to said busy option parameters.

54. A method according to claim 49, further comprising:

in step c), sending in said destination profile handling message a PTN number of calls parameter indicating for at least one destination location in said destination profile whether one or more than one call can be delivered to said destination location; and

in step d), setting said PTN number of calls parameter in said indicated destination location.

55. A method according to claim 49, further comprising:

in step c), sending in said destination profile handling message one or more PTN number of calls flags indicating for at least one destination location in said destination profile whether a call is being delivered to said destination location or not; and

in step d), setting said PTN number of calls flags in said indicated destination profiles.

56. A method to control a personal communication system (PCS) server of a personal communication system providing PCS subscribers with personal telephone numbers comprising:

a) storing in a PCS destination profile memory in association with at least one personal telephone number (PTN) a number of destination profiles respectively consisting of a sequence of destination numbers indicating a number of predetermined destination locations; and

b) completing an incoming call directed to said PTN by routing the incoming call sequentially to destination locations in accordance with the sequence indicated in a destination profile until said call is abandoned or answered;

wherein:

c) one or more of said destination numbers have associated with them one or more call distribution parameters; and

d) an incoming PTN call is routed to destination locations in said destination profile in accordance

with the sequence indicated in a destination profile and said one or more call distribution parameters until said call is abandoned or answered.

57. A method according to claim 56, wherein:

a destination profile handling message for selectively handling one or more of said destination profiles in accordance with one or more handling parameters is provided to said PCS-server.

58. A method according to claim 57, wherein:

said destination profile handling message is received from a PCS subscriber telephone which sets said handling parameters.

59. A method according to claim 58, wherein:

said one or more handling parameters indicate said one or more call distribution parameters.

60. A method according to claim 58, wherein:

said one or more handling parameters comprises one or more handling parameters selected from the group consisting of the following parameters: a selection/activation/deactivation handling parameter and a switching parameter.

61. A method according to claim 57, further comprising:

sending said destination profile handling message by said PCS communication system which sets said handling parameters in accordance with

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operating conditions of said PCS system and/or a telephone system connected to said PCS system.

62. A method according to claim 61, wherein:

said one or more handling parameters indicate said one or more call distribution parameters.

63. A method according to claim 61, wherein:

said one or more handling parameters comprises one or more parameters selected from the group consisting of the following parameters: a selection/activation/ deactivation handling parameter and a switching parameter.

64. A method according to claim 56, wherein:

said call distribution parameters are selected from one or more parameters selected from the group consisting of a call origin parameter, a teleservice-type parameter, a busy option parameter, a PTN number of calls parameter and a PTN number of calls flag.

65. A method according to claim 64, wherein:

said one or more handling parameters indicate said one or more call distribution parameters; and several call distribution parameters are associated with said destination number and an incoming PTN call is routed to destination locations in said destination profile in accordance with the sequence indicated in said destination profile and a

logical combination of said call distribution parameters.

66. A method according to claim 65, wherein:
said call handling parameter also indicates the logical combination.

67. A method according to claim 64, further comprising:
comparing a call origin of the incoming PTN call with the set call origin parameter at said destination numbers; and
selecting a next destination location in the destination profile if the call origin and the call origin parameter do not match and routing the PTN call to the destination location when they match.

68. A method according to claim 64, further comprising:
comparing a teleservice type of the incoming PTN call with the set teleservice-type parameter at said destination number; and
selecting a next destination location in the destination profile if the teleservice type and the teleservice-type parameter do not match and routing the PTN call to the destination location when they match.

69. A method according to claim 67, wherein:
the call origin and/or the teleservice-type of the PTN call is screened by the telephone system and provided to said PCS server during call setup.

70. A method according to claim 64, further comprising:

determining whether a present destination location to which the incoming PTN call is to be routed is busy or not; and

routing said call to a next destination location as indicated by the busy option parameter at the present destination location if said present destination location is busy and said busy option parameter indicates a next destination location, or returning a busy indication to the calling subscriber if said present destination location is busy and said busy option parameter indicates the issuance of a busy indication.

71. A method according to claim 64, further comprising:

determining whether a call is already being delivered to a destination location to which said incoming PTN call is to be delivered, setting said PTN number of calls flag when a call is being delivered to said destination location and resetting said flag if no call is being delivered; and

routing said incoming PTN call to said destination location if said PTN number of calls flag is set or to the next destination location in the destination profile if said PTN number of calls flag is not set.

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72. A method according to claim 64, further comprising:

determining whether a call is already being delivered to a destination location to which said incoming PTN call is to be delivered, setting said PTN number of calls flag when a call is being delivered to said destination location and resetting said flag if no call is being delivered;

routing said incoming PTN call to said destination location if said PTN number of calls flag is set or to the next destination location in the destination profile if said PTN number of calls flag is not set;

determining on the basis of a set PTN number of call parameter whether one or more than one call can be delivered to a desired destination location; and

routing said incoming PTN call to said destination location if said PTN number of calls parameter indicates that more than one call can be delivered to said destination location, or to the next destination location in the destination profile if said PTN number of calls parameter indicates that only one call can be delivered to said destination location and said PTN number of calls flag is set.

73. A method according to claim 38, further comprising:

determining an active destination profile in said destination profile memory; and

routing said incoming PTN call in accordance with the call distribution parameters set to said active destination profile.

74. A method according to claim 73, wherein:

said one or more handling parameters comprises one or more handling parameters selected from the group consisting of the following parameters: a selection/activation/deactivation handling parameter and a switching parameter; and

said active destination profile is a default destination profile set by a default setting means of said destination profile handling means or an active destination profile selected by said selection/activation/deactivation handling parameter and/or said switching parameter.

75. A PCS server according to claim 19, wherein:

said PCS routing means comprises an active destination profile determining means for determining an active destination profile in said destination profile memory; and

said PCS routing means routing said incoming PTN call in accordance with the call distribution parameters set to said active destination profile.

76. A method according to claim 56, further comprising:

determining an active destination profile in said destination profile memory; and

routing said incoming PTN call in accordance with the call distribution parameters set to said active destination profile.